

CLAIMS

1. A finishing machine (1) for finishing a work surface (20) which consists of a floor of terrazzo, marble, stone, concrete or the like, the finishing machine comprising at least two finishing units (3a, 4a; 3b, 4b; 3c, 4c, 300) which are supported by the frame (14, 100) of the finishing machine and which are arranged for grinding, polishing and/or machining of the work surface (20), each finishing unit comprising a motor (4a, 4b, 4c, 200) and a rotatably mounted working disc (41) driven by the motor, c h a r a c t e r i s e d in that

said finishing units (3a, 4a; 3b, 4b; 3c, 4c, 300) are individually tiltable relative to the frame (14, 100) about respective axes that are substantially parallel to the work surface (20).

2. A finishing machine as claimed in claim 1, wherein the finishing unit (3a, 4a; 3b, 4b; 3c, 4c, 300) is connected to the frame (14, 100) by a holder (5, 5a, 5b, 5c), which is hingedly connected to the frame (14, 100) so that the finishing unit is pivotable relative to the frame (14, 100).

3. A finishing machine as claimed in claim 2, wherein a means (31) is arranged for adjusting the angle of the holder relative to the frame (14, 100).

4. A finishing machine as claimed in any one of the preceding claims, wherein the finishing unit (3a, 4a; 3b, 4b; 3c, 4c, 300) is connected to the frame by a holder (5, 5a, 5b, 5c) which is turnably connected to the finishing unit, so that the finishing unit is tiltable relative to the frame (14, 100).

5. A finishing machine as claimed in claim 4, wherein a means (32) is arranged for adjusting the angle of the holder (5, 5a, 5b, 5c) relative to the finishing unit (3a, 4a; 3b, 4b; 3c, 4c, 300).

6. A finishing machine as claimed in any one of the preceding claims, wherein a front part of the frame (14, 100), seen in the main travelling direction of the finishing machine, projects in front of a front pair of wheels (200) of the finishing machine to form a supporting frame (101) on which the finishing units are mounted.

7. A finishing machine as claimed in claim 6, wherein the supporting frame (101) is vertically pivotable relative to the remaining part of the frame (14, 100).

8. A finishing machine as claimed in claim 6, wherein the supporting frame (101) is narrower than the remaining part of the frame (14, 100).

9. A finishing machine as claimed in any one of the preceding claims, wherein a part of a first machining unit (3a, 4a), which is positioned furthest away from a centre axis (S) located in the longitudinal direction of the finishing machine, is positioned further away from the centre axis (S) than a part of a second finishing unit (3b, 4b; 3c, 4c), which part is located next to the centre axis (S).

10. A finishing machine as claimed in any one of the preceding claims, wherein the finishing machine comprises three finishing units (3a, 4a; 3b, 4b; 3c, 4c) which are arranged so that, when the finishing machine is moved and the finishing units are in finishing engagement with the floor surface,

a first finishing unit (3a, 4a) produces a central finishing trace, and

second and third finishing units (3b, 4b; 3c, 4c) produce finishing traces positioned on each side of the first finishing trace.

11. A finishing machine as claimed in any one of the preceding claims, wherein the first finishing unit (3a, 4a) is tiltable about an axis which is substantially perpendicular to the centre axis (S) of the finishing machine, and

wherein a second finishing unit (3b, 4b; 3c, 4c) is tiltable about an axis parallel to the centre axis (S) of the finishing machine.

12. A finishing machine as claimed in claim 11,
5 wherein a third finishing unit is tiltable about an axis parallel to the centre axis (S) of the finishing machine.

13. A finishing machine as claimed in any one of claims 1-10, wherein the first finishing unit (3a, 4a) is tiltable about an axis which is substantially perpen-
10 dicular to the centre axis (S) of the finishing machine, wherein second and third finishing units (3b, 4b; 3c, 4c) are tiltable about a second and a third axis, respectively, and

wherein said second and third axes, or their exten-
15 sion, form an acute angle to each other.

14. A finishing machine as claimed in any one of the preceding claims, wherein each of said finishing units (3a, 4a; 3b, 4b; 3c, 4c, 300) is arranged to abut against the work surface (20) by a force which essentially equals
20 the weight of the finishing unit.

15. A finishing machine as claimed in any one of the preceding claims, wherein each of said finishing units (3a, 4a; 3b, 4b; 3c, 4c, 300), when engaging the work surface (20), is displaceable relative to the frame (14)
25 in a direction which is substantially perpendicular to the work surface (20).

16. A finishing machine as claimed in any one of the preceding claims, further comprising an internal combustion engine (400), which via a generator (500) and associated frequency converters (800a, 800b) supplies power
30 to said finishing units (300) and at least one propelling unit (200).

17. A finishing machine as claimed in claim 16, wherein each of said frequency converters (800a, 800b)
35 is controllable by a control unit (700), which control unit is capable of collecting control data from a manual-

ly actuated control means (701), a radio control unit (702) or an autonomous navigation unit (703).

18. A finishing machine as claimed in claim 16 or 17, wherein said propelling unit (200) comprises two
5 electric motors arranged to drive a drive wheel (201) each, each of said electric motors being individually controllable by an associated frequency converter (800a).

19. A finishing machine as claimed in claim 18,
further comprising at least one pivot wheel (202) which
10 together with said drive wheel (201) forms a supporting surface for the finishing machine.

20. A finishing machine as claimed in any one of the preceding claims, wherein an image-generating device (704) is arranged to allow inspection in real time of the
15 finished work surface (20) in connection with the work surface being finished by the finishing machine.

21. A finishing machine as claimed in any one of the preceding claims, further comprising a driver's seat having an operator's seat (10) and an actuator (11).